FULL INFORMED ROAD NETWORKS EVALUATION: SIMPLER, MAYBE BETTER

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Abstract - The aim of this work is to categorize the current state of a road network, to determine quality of service and to assess the need to establish a program for maintenance or investment with respect to an evaluation of the user's network satisfaction. It was designed to obtain information on the level of service provided and road network conditions, using a series of hypothetical questions. The instruments (logical functions or predicates) used considered only two or three attributes, so that respondents are able to easily comprehend and evaluate the scenarios presented to them. On the other hand, the hypothetical scenarios within each instrument were generated by varying the levels of the attributes entropy in a way that is specific to each of them, i.e., this study investigates the measurement of road network structure according to this assumption. Existing measures of heterogeneity, connectivity, accessibility, and interconnectivity are reviewed and supplemental measures are proposed, including measures of entropy, connection patterns, and continuity.